

## Claims

1. A method for storing plant process signals (5) wherein depending on the current operating state (I,II) of the plant a compression method matched to the current operating state (I,II) is applied to the set of process signals (5) and a thereby determined compressed process signal set (25) is stored, characterized in that the compression method involves examining at least one of the process signals (5) to ascertain whether the process signal (5) has remained within an amplitude band (20) since it was last stored and how long ago it was last stored, the process signal (5) being stored if it was last stored longer ago than a predefined time interval, and the size of the amplitude band (20) is selected according to the current operating state (I,II) of the plant, the compression method involving acquiring the process signals at definable time intervals (10,15) and the process signals (5) first being stored in a header buffer and only subsequently processed by means of the compression method matched to the current operating state (I,II) and stored as a compressed signal set (25), the current operating state (I,II) corresponding to an instant other than the instant of storage of the process signals (5) in the header buffer.

2. A method for storing plant process signals (5), in particular as claimed in claim 1, wherein depending on the current operating state (I,II) of the plant a compression method matched to the current operating state (I,II) is applied to the set of process signals (5) and a thereby determined compressed process signal set (25) is stored, characterized in that the compression method involves examining at least one of the process signals (5) to ascertain whether the process signal (5) has left a further amplitude

band (201) since it was last stored, the process signal (5) being stored only after it has left the further amplitude band (201), and the size of the further amplitude band (201) being selected according to the current operating state (I,II) of the plant, and the process signals (5) first being stored in a header buffer and only subsequently processed by means of the compression method matched to the current operating state (I,II) and stored as a compressed signal set (25), the current operating state (I,II) corresponding to an instant other than the instant of storage of the process signals (5) in the header buffer.

3. The method as claimed in claim 1 or 2, characterized in that the process signals are acquired simultaneously so that the set of process signals corresponds to a particular instant.

4. The method as claimed in one of the claims 1 to 3, characterized in that the operating state (I,II) of the plant changes during its operation and at least two different compression methods are applied.

5. The method as claimed in one of the claims 1 to 4, characterized in that the size of the time intervals (10,15) is selected according to the current operating state (I,II) of the plant.

6. The method as claimed in one of the claims 1 to 5, characterized in that process signals (5) whose current values are in the region of a zero point are stored with the value zero.

7. The method as claimed in one of the claims 1 to 6, characterized in that the process signals (5) are monitored for violation of a limit value.